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Attorney Docket No. 46943-CIP2 (71758)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Jin-an JIAO, et al.

U.S.S.N.: 09/990,586

Group Art Unit: 1644

FILED: November 21, 2001

Examiner: M. Haddad

FOR: ANTIBODIES FOR INHIBITING BLOOD COAGULATION AND  
METHODS OF USE THEREOF

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF EXPRESS MAIL

I, Patricia A. Barnes, hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as "Express Mail Post Office To Addressee" service, Label No. EV438994545US in an envelope addressed to Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on August 23, 2004.

By: Patricia A. Barnes  
Patricia A. Barnes

Sir:

LETTER

We enclose herewith Form PTO-1449 sheets listing references for the Examiner's consideration in connection with the above-identified application. Copies of the references were previously submitted in related application USSN 10/230,880, filed August 29, 2002 (divisional of U. S. Patent No. 5,986,065).

If the Examiner should require copies of any of the references, they will be supplied on request.

USSN 09/990,586  
Jin-an JIAO, et al.  
LETTER  
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Although it is not believed that any fee is needed to consider this Letter, the USPTO is authorized to charge deposit account number **04-1105** should such fee be deemed necessary.

Respectfully submitted,

Date: 23 August 2024



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Robert L. Buchanan  
Registration No. 40,927  
EDWARDS & ANGELL, LLP  
P. O. Box 55874  
Boston, MA 02205  
Tel. (617) 439-4444  
Fax: (617) 439-4170 / 7748  
Customer No.: 21874

#455704



FORM PTO-1449

DOCKET NO:

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SERIAL NO.:

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INFORMATION DISCLOSURE STATEMENT

APPLICANT(S): Jin-an JIAO, et al.

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UNITED STATES PATENT DOCUMENTS

EXAM. INITIAL S		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIAT
	AA	6,333,167 B1	12/25/01	Quinet et al.	435	23	03/10/00
	AB	6,245,884 B1	06/12/01	Hook	530	300	10/16/98
	AC	6,117,639	09/12/00	Germann et al.	435	6	08/31/98
	AD	5,958,713	09/28/99	Thastrup et al.	435	7.4	03/14/97
	AE	5,861,267	01/19/99	Su	435	23	05/1/95
	AF	5,171,662	12/15/92	Sharma	435	5	04/04/91
	AG	4,644,055	02/17/87	Kettner et al.	530	330	12/17/84
	AH	2002/0025508 A1	02/28/02	Fechteler et al.	435	4	01/05/01

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATIO YES/NO
	BA						
	BB						
	BC						
	BD						
	BE						
	BF						

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

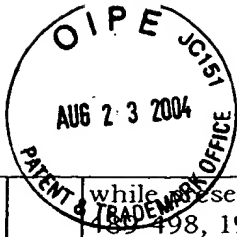
	CA	Boulianne, et al., "Production of functional chimaeric mouse/human antibody", Nature, Vol. 317, pp. 643-646, December 13, 1984.
	CB	Bruggemann, et al., "The Immunogenicity of Chimeric Antibodies", J. Exp. Med., [Vol.] 170, pp 2153-2157, December 1989.

EXAMINER:

DATE:



	CC	Carter, et al., "Humanization of an anti-p185 <sup>HER2</sup> antibody for human cancer therapy", Proc. Natl. Acad. Sci. USA, Vol. 89, pp. 4285-4289, May, 1992.
	CD	Casipit, et al., "Improving the binding affinity of an antibody using molecular modeling and sit directed mutagenesis", Protein Science, [Vol. 7], pp. 1671-1680, 1998.
	CE	Co, et al., "Humanized antibodies for antiviral therapy", Proc. Natl. Acad. Sci. USA, Vol. 88, pp 2869-2873, April 1991.
	CF	Couto, et al., "Designing Human Consensus Antibodies with Minimal Positional Templates", [Cancer Research (Supp.)], [Vol. 55], pp. 5973-5977, December 1, 1995
	CG	Jager, et al., "Current Status of Cancer Immunodetection With Radiolabeled Human Monoclonal Antibodies", Seminars in Nuclear Medicine, Vol. XXIII, No. 2, pp. 165-179, 1993.
	CH	Faber, et al., "A Novel Method to Determine the Topology of Peroxisomal Membrane Proteins <i>in Vivo</i> Using the Tobacco Etch Virus Protease", The Journal of Biological Chemistry, Vol. 276, No. 39, pp. 36501-36507, September 28, 2001.
	CI	Foote, et al., "Antibody Framework Residues Affecting the Conformation of the Hypervariable Loops", J. Mol. Biol., Vol. 224, pp. 487-499. (1992).
	CJ	Gorman, et al., "Reshaping a therapeutic CD4 antibody", Proc. Natl. Acad. Sci. USA, Vol. 88, pp. 4181-4185, May 1991.
	CK	Griffiths, et al., "Human anti-self antibodies with high specificity from phage display libraries", The EMBO Journal, Vol. 12, No. 2, pp. 725-734, 1993.
	CL	Hanes, et al., "Picomolar affinity antibodies from a fully synthetic naive library selected and evolved by ribosome display", Nature Biotechnology, Vol. 18, pp. 1287-1292, December 2000.
	CM	Kao, et al., "Chimeric Antibodies with Anti-Dextran-Derived Complementarity-Determining Regions and Anti- <i>p</i> -Azophenylarsonate-Derived Framework Regions", The Journal of Immunology, Vol. 151, pp. 1968-1979, August 15, 1993.
	CN	Knappik, et al., "Fully Synthetic Human Combinatorial Antibody Libraries (HuCAL) Based on Modular Consensus Frameworks and CDRs Randomized with Trinucleotides", J. Mol. Biol., Vo 296, pp. 57-86, 2000.
	CO	Leong, et al., "Adapting pharmacokinetic properties of a humanized anti-interleukin-8 antibody for therapeutic applications using site-specific pegylation", Cytokine, Vol. 16, No. 3, pp. 106-119, 2001.
	CP	LoBuglio, et al., "Mouse/human chimeric monoclonal antibody in man: Kinetics and immune response", Proc. Natl. Acad. Sci. USA, Vol. 86, pp. 4220-4224, June 1989.
	CQ	Mateo, et al., "Humanization of a mouse monoclonal antibody that blocks the epidermal growth factor receptor: recovery of antagonistic activity", Immunotechnology, [Vol. 3], pp. 71-81, 1997
	CR	Morrison, et. al., "Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region domains", Proc. Natl. Acad. Sci. USA, Vol. 81, pp. 6851-6855, November 1984.
	CS	Morrison, et al., "Genetically Engineered Antibody Molecules", Advances in Immunology, Vol. 44, pp. 65-93.
	CT	Padlan, "On the Nature of Antibody Combining Sites: Unusual Structural Features That May Confer on These Sites an Enhanced Capacity for Binding Ligands", Proteins, [Vol. 7], pp. 112-124, 1990.
	CU	Padlan, "A possible procedure for reducing the immunogenicity of antibody variable domains
EXAMINER:		DATE:



		while preserving their ligand-binding properties", Molecular Immunology, Vol. 28, No. 4/5, pp. 189-198, 1991.
	CV	Padlan, "Anatomy of the antibody molecule", Molecular Immunology, Vol. 31, No. 3, pp. 169-217, 1994.
	CW	Queen, et al., "Cell-Type Specific Regulation of a <i>k</i> Immunoglobulin Gene by Promoter and Enhancer Elements", Immunological Reviews, No. 89, pp. 49-68, 1986.
	CX	Queen, et al., "A humanized antibody that binds to the interleukin 2 receptor", Proc. Natl. Aca. Sci. USA, Vol. 86, pp. 10029-10033, December 1989.
	CY	Reichert, "Monoclonal antibodies in the clinic", Nature Biotechnology, Vol. 19, pp. 819-822, September 2001.
	CZ	Riechmann, et al., "Reshaping human antibodies for therapy", Nature, Vol. 332, pp. 323-327, March 24, 1988.
	CAA	Robertson, "Genentech awarded critical antibody patent", Nature Biotechnology, Vol. 20, p. 108, February 2002.
	CBB	Roguska, et al., "Humanization of murine monoclonal antibodies through variable domain resurfacing", Proc. Natl. Acad. Sci. USA, Vol. 91, pp. 969-973, February 1994.
	CCC	Roguska, et al., "A comparison of two murine monoclonal antibodies humanized by CDR-grafting and variable domain resurfacing", Protein Engineering, Vol. 9, No. 10, pp. 895-904, 1996.
	CDD	Saldanha, et al., "A single backmutation in the human kIV framework of a previously unsuccessfully humanized antibody restores the binding activity and increases the secretion in cos cells", Molecular Immunology, [Vol. 36], pp. 709-719, 1999.
	CEE	Shearman, et al., "Construction, expression and characterization of humanized antibodies directed against the human $\alpha/\beta$ T cell receptor", The Journal of Immunology, Vol. 147, pp. 4366-4373, December 15, 1991.
	CFF	Tan, et al., "Superhumanized" Antibodies: Reduction of Immunogenic Potential by Complementarity-Determining Region Grafting with Human Germline Sequences: Application to an Anti-CD28", The Journal of Immunology, [Vol. 169], pp. 1119-1125, 2002.
	CGG	Tempest, et al., "Reshaping a human monoclonal antibody to inhibit human respiratory syncytial virus infection <i>in vivo</i> ", Bio/Technology, Vol. 9, pp. 266-271, March 1991.
	CHH	Teng, et al., "Construction and testing of mouse-human heteromyelomas for human monoclon antibody production", Proc. Natl. Acad. Sci. USA, Vol. 80, pp. 7308-7312, December 1983.
	CII	Tomizuka, et al., "Double trans-chromosomal mice: Maintenance of two individual human chromosome fragments containing Ig heavy and <i>k</i> loci and expression of fully human antifodies", PNAS, Vol. 97, No. 2, pp. 722-727, January 18, 2000.
	CJJ	Vaughan, et al., "Human Antibodies with Sub-nanomolar Affinities Isolated from a Large Non-immunized Phage Display Library", Nature Biotechnology, Vol. 14, pp. 309-314, March 1996.
	CKK	Verhoeyen, et al., "Reshaping Human Antibodies: Grafting an Antilysozyme Activity", Science, Vol. 239, pp. 1534-1536, March 25, 1988.

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**UNITED STATES PATENT DOCUMENTS**

EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,997,867	12/07/99	Waldmann et al.	424	154.1	6/5/95
	AB	5,985,279	11/16/99	Waldmann et al.	424	144.1	7/15/92
	AC	5,766,886	6/16/98	Studnicka et al.	435	70.21	12/14/92
	AD	5,693,762	12/2/97	Queen et al.	530	387.3	6/7/95
	AE	5,225,539	7/6/93	Winter	530	387.3	10/25/91

**FOREIGN PATENT DOCUMENTS**

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	BA						
	BB						

**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

	CA	Presta, et al., "Generation of a Humanized, High Affinity Anti-tissue Factor Antibody for Use as a Novel Antithrombotic Therapeutic", Thromb Haemost, Vol. 85, pp.379-89, 2001.
	CB	Saldanha, J., "Choice of Human Frameworks", National Institute for Medical Research, 2002.
	CC	Robertson, D., "Genentech awarded critical antibody patent", Nature Biotechnology, Vol. 20, pp. 108, 2002.

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